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METHOD OF PERFORMING THE SIEVE TEST ON EMULSIFIED ASPHALTS

SCOPE

This test method is for determining the amount of asphalt particles larger than the 850 µm (No. 20) mesh sieve in emulsified asphalt. A variation of this method may be applied for field and project use.

APPARATUS

1. Sieve, having a 200 mm (8 in.) diameter frame with 850 µm (No. 20) mesh sieve cloth
2. Pan of appropriate size to fit over the bottom of the sieve
3. Balance, with at least 1000 gram capacity and accurate to 0.1 gram
4. Distilled water

PROCEDURE

1. Weigh the sieve and pan to the nearest 0.1 gram.
2. Weigh 1000 grams of emulsion into a suitable container, such as a large beaker.
3. Wet the sieve with distilled water.
4. Pour the 1000 grams of emulsion through the sieve.
5. Wash the container, which held the sample and the residue on the sieve with distilled water until the washings run clear.
6. Place the pan under the sieve and heat for 2 hours at a temperature of about 135°C (275°F) in a drying oven.
7. Cool the sieve and pan to room temperature and weigh to the nearest 0.1 gram.

CALCULATION

1. Calculate the percent of sample retained on the sieve as follows:

$$\text{Percent of Sample Retained} = \frac{B - A}{10}$$

Where:

A = Mass (weight) of sieve and pan, grams
B = Mass (weight) of sieve, pan and residue, grams.

REPORTING RESULTS

1. The test result is reported to the nearest 0.01%

NOTE: The variation of this method for field and project use is as follows:

Wet the sieve with distilled water and pour 950 ml (1 quart) of emulsion through it. Wash the container and residue on the sieve with distilled water until the washings run clear. Visually examine the sieve for residue retained. If no residue is visible, the emulsion is considered to comply with the sieve test requirement. If the slightest amount of residue is detected as retained on the sieve, a sample representing this emulsion must be obtained and an official test, as previously described in this method, be performed.